

GORBUNOV, Ye.P.; RAZUMOVA, K.A.

Effect of a strong magnetic field on the magnetohydrodynamic stability  
of a plasma and the confinement of charged particles in a "Tokamak"  
apparatus, Atom. energ. 15 no. 5:363-370 N '63.  
(MIRA 16:12)

20

**PLATE 2 BOOK EXHIBITION**

**International Conference on the Nuclear State of Atomic Energy, 1959.**  
Soviet research achievements in Physics, Mathematics, and Technical Sciences, Vol. 24.,  
Nuclear Physics, Radiophysics, Radiation, Radioelectronics, Reports of Soviet Scientists;  
8,000 copies printed.  
Ed. [etc.] pgs. A.I. Al'tshuler, Academician V.I. Nevel'son, Academician and  
I.U. Vilenkin, Candidate of Physical and Mathematical Sciences; I.B. Bardin, Academician and  
B.I. Berezin and D.P. Kortenov, Candidates of Mathematical Sciences Ed. of this  
Collection: M. [etc.] [etc.] G.I. Smirnov, Head, Ed. of Physical and Mathematical  
Sciences; This collection of articles is intended for scientific research workers  
and other persons interested in nuclear physics. The volume contains 45 papers  
presented by Soviet scientists at the Second Conference on Peaceful Uses of  
Atomic Energy, held in Geneva in September 1959.

Proceedings intended for scientific research workers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1950.

Proceedings is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, including problems of particle acceleration and particle acceleration with magnetic fields, the first paper by L. A. Artsimovich presents a review of Part I and with particular problems in this field. Part II deals in detail with various problems in nuclear physics, such as the interaction of heavy atoms and their ions, and with the study of heavy nuclei by methods of artificial earth satellites and rockets, described in a paper by G. E. Verner. The Maxima-Laguna effect and with the study of the confluence is published in 16 volumes. The first 6 volumes contain the proceedings of papers presented by Soviet scientists as follows: Volume (1), Radiation (Nuclear Physics); Volume (2), Radiation (Nuclear Power); Volume (3), Radiation (Nuclear Reactor and Nuclear Power); Volume (4), Radiation (Nuclear Materials); Volume (5), Radiation (Radiochemistry and Radiation Protection); Volume (6), Radiation (Radiobiology and Radiobiological Action of Electrons). The other 10 volumes contain selected papers (presented at the Conference by non-Soviet scientists). In the present volume 10 articles have been added. These articles were written in English language; the rest of the articles are not identical.

High Frequency Plasma Oscillation, Faded Discharge, A. B. Alyabyev, et al.  
Plasma Oscillation, J. D. Bogolyubov, Transactions of the Academy of Sciences (USSR), Volume 5, Mathematics, 1950.

The serial reports 2302 and 2304 are merged in the Report 2201, by G. M. Libaryan, et al., 1950, and the serial reports 2305 and 2306 are merged in the Report 2202, by G. M. Libaryan, et al., 1950.

卷之三

89

International Conference on the Non-Self-Destructive Testing of Atomic Reactors, 2d., Geneva, 1959. Stability (non-self-destructive testing) risks. (Reports of Soviet Scientists; Series: 1st Study, Vol. 1.) 8,000 copies printed.

[Ed., (Paris 1959).] A.I. Al'binov, Academicheskie F.I. Nekrasov, Academician; and I.P. Vinogradov, Candidate of Physical and Mathematical Sciences; and D.F. Savchenko, Candidate of Mathematical Sciences. [Series book]. G.I. Smirnov, Doctor of Physical and Mathematical Sciences; This collection of articles is intended for scientific research workers engaged in basic science in nuclear physics. The volume contains 45 papers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1959.

Proceedings intended for scientific research workers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1950.

Proceedings is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, including problems of particle acceleration and particle acceleration with magnetic fields, the first paper by L. A. Artsimovich presents a review of Part I and with particular problems in this field. Part II deals in detail with various problems in nuclear physics, such as the interaction of heavy atoms and their ions, and with the study of heavy nuclei by methods of artificial earth satellites and rockets, described in a paper by G. E. Verner. The Max-Planck Institute for Physics is publishing in 16 volumes the proceedings of the proceedings of papers presented by Soviet scientists as follows: Volume (1), Radiation (Nuclear Physics); Volume (2), Radiation (Nuclear Power); Volume (3), Radiation (Nuclear Reactor and Nuclear Power); Volume (4), Radiation (Nuclear Reactor Materials); Volume (5), Radiation (Nuclear Fission and Radiation Protection); Volume (6), Radiation (Radiation Medicine); Volume (7), Radiation (Radiation Detectors); Volume (8), Polonium-210 Primarily Isotopes (Proceedings of the Conference on the Use of Isotopes). The other 10 volumes contain selected papers presented at the Conference by non-Soviet scientists. In the present volume there are 10 articles written in three articles were the English and Russian language; 7 articles were written in English and 3 in Russian. The articles are not identical.

High Frequency Plasma Oscillation, Faded Discharge, A. B. Alyabyev, et al.  
Plasma Oscillation, J. D. Bogolyubov, Transactions of the Academy of Sciences of the USSR, No. 1, 1950, p. 2356 and p. 2356.

Report 221, by G. M. Liberman, et al., is published in 2356 and p. 2356.

Imports of Soviet Scientific Books

## PART I. PLASMA PHYSICS AND THE PROBLEM OF CONTROLLED NUCLEAR FUSION

5  
54  
Controlled Nuclear Research in the USSR (Report 298)  
S. I. Batalinov, S. I. Bondar', M. G. Bravman,  
L. G. Chikishev, V. N. Dzhurjukov, Yu. G. Frouzhin,  
V. I. Goryainov, G. G. Kostylev, Yu. G. Pilyavskiy,  
V. A. Rabinov, V. A. Shchegolev, and V. A. Zarubov. High Current Institute  
of Physics, V. A. Tikhonov, Yu. V. Goryainov, and B. S. Tarashev. Development of a  
Nuclear Reactor, V. A. Tikhonov, Yu. V. Goryainov, and B. S. Tarashev.

Permeability of the crust at depths of 10-15 km (Report 250)	53
Permeability of the crust beneath Lake Ladoga (Report 251)	54
Permeability of the crust beneath Lake Onega (Report 252)	55
Permeability of the crust beneath Lake Seliger (Report 253)	56
Permeability of the crust beneath Lake Plesheevo (Report 254)	57
Permeability of the crust beneath Lake Kizhi (Report 255)	58
Permeability of the crust beneath Lake Siverskoe (Report 256)	59
Permeability of the crust beneath Lake Ilmen (Report 257)	60
Permeability of the crust beneath Lake Ladoga (Report 258)	61
Permeability of the crust beneath Lake Onega (Report 259)	62
Permeability of the crust beneath Lake Seliger (Report 260)	63
Permeability of the crust beneath Lake Plesheevo (Report 261)	64
Permeability of the crust beneath Lake Kizhi (Report 262)	65
Permeability of the crust beneath Lake Ilmen (Report 263)	66

卷之三

**APPROVED FOR RELEASE: Tuesday, August 01, 2000**

**CIA-RDP86-00513R0014445**

21(0)

**PLATE I BOOK EXHIBITION**

107/2022.

**International Conference on the Physical Sciences or Atomic Energy, 2d., Geneva, 1956.**  
 United Nations (United Nations Educational, Scientific and Cultural Organization) **Reports of Scientific Committees**, 1959. 552 p. (Series: *J.-I. Treaty, Vol. 1*)  
 Only English printed.

**Pls. (Title page): A.I. Al'ebayev, Academician; V.T. Neelov, Academician; G.P. Tsvetkov, Vice-chairman of the Executive Committee of the International Conference on the Physical and Mathematical Sciences; Ed. of the Conference; Dr. B.P. Savchenko and Dr. N. S. Kurnikov, Presidents of the Physical and Mathematical Sciences; Dr. G.I. Shchegolev, Vice-Ed. of the Conference.**

This collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 43 papers presented by Soviet scientists at the Second Conference on Peaceful Uses of Atomic Energy, held in Geneva in September 1956.

**CONTENTS:** It is divided into:

<p><b>Report of Soviet Scientists' Seminar</b> (Cont.)</p> <p><b>Electron, I. P., and V. I. Shustor.</b> Spectroscopic Study of High Temperatures [Report 2230]</p>	307/201
<p><b>Glazkov, E. A., P. M. Sorkin, D. B. Pashkov, I. V. Dubrovskiy, A. M. Rabinovich, O. G. Kozoriz, T. G. Lermontova, N. G. Artyukov, and F. G. Golovkin.</b> Electron Emission, Plasma Instabilities, and Plasmoids (Report 2231)</p>	110
<p><b>Glazkov, I. B., D. P. Yarosh, V. D. Kostylev, D. P. Petkov, L. A. Matveeva, and T. I. Novikova.</b> Plasma Instability in a Gravitational Field (Report 2232)</p>	120
<p><b>Glazkov, V. B.</b> Plan Motion in Potential Machines (Report 2262)</p>	135
<p><b>Dobrotolubov, I. A., T. P. Tolok, I. I. Melnikov, B. Z. Sardarov, V. M. Glazkov, A. M. Vol'pert, and V. I. Danilov.</b> New Theoretical Contributions to a High Frequency Magnetic Field (Report 2263)</p>	145
<p><b>Dobrotolubov, I. A., B. B. Kudryavtsev, Iu. I. Melnikov, and A. I. Nevezin.</b> Dynamics of a Charged Particle in a Magnetic Field (Report 2211)</p>	155

**APPROVED FOR RELEASE: Tuesday, August 01, 2000**

CIA-RDP86-00513R0014445

RAZUMOVKA

Kaney and Buchakian sediments in the Don-Northern Donets interfluvium.  
Uch. zap. ONU 7/125-129 '60.  
(Don Valley-Geology, Stratigraphic)  
(MRA 15:7)

RAZUMOVA, L.

They were now mistaken. Voen. znan. dl no.1:12-13 Jr 165.  
(MIRA 18:2)

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001444|

19. *Leucosia* *leucostoma* *leucostoma*

1929-1930 god. v. 1930 god. Vsesoyuznaya i. N. T. Akademiya Nauk SSSR, Tsereteli, Instit. prochnosty, vyp. 13, 1949.

Pub. L. 107-248, Title III, § 3512

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0014445

RAZUM'VA, L. A.

"Principle Results of Agrometeorological Investigations of the Hydrometeorological Service," Trudy TsIP, no. 18 (45), 1969

FAZUROVA, I. A.

"Variation of Soil Moisture Reserves in the Winter Period". Meteorologiya i Gidrologiya, No. 1, Sept. 1950.

Report U-2268, 26 August 1952.

KAZUMOVA, L. A.

2  
Geo(1)

Meteorological Abst.  
Vol. 4 No. 4  
April 1953  
Part 1  
Aqueous Vapor and  
Hydrometers

24-225 551.579.5  
Razumova, L. A. Migratsiya vлаги в почве по данным лабораторных опытов. [Movement of moisture in the soil according to experimental data obtained in the laboratory.] U.S.S.R. Glavnoe Upravlenie Gidrometeorologicheskoi Sluzhby, Informatsionnyi Sbornik, 1:98-108, 1951. figs., 5 tables, 3 refs. DLC—Special experimental investigations have been made in the town of Mamontovp, Kuntsevo region, Moscow district, and it has been found that during the freezing of the soil the characteristics of soil moisture are of a paramount importance in the internal migration of moisture in soil. In dry soils the migration of moisture occurs only in a vapor form. In moist soils the upper layers are enriched by moisture at the expense of lower, later freezing layers. The capillary inflow of water from outside (the bottom of soil sample was placed in contact with water table) was very great during the freezing process and all layers were enriched by water. Subject Headings: 1. Soil moisture  
2. Soil freezing.—N.T.Z.

Razumova, L. A.

AID P - 3174

Subject : USSR/Meteorology  
Card 1/1 Pub. '71-# ~ 1/23  
Authors : Verigo, S. A., Mastinskaya, S. B. and Razumova, L. A.  
Title : Moisture supply of summer wheat in virgin and waste land regions  
Periodical : Met. i. gidr., 5, 3-8, 8/0 1955  
Abstract : The water supply and the degree of humidity in the soil in the newly worked regions in the east and south-east areas of the European SSSR and western Siberia is described in detail according to summer monthly averages. Tables, curves and maps show the water supply distribution and the geological characteristics of the soil. The entire region is divided into 6 zones, each having its own advantages and disadvantages. Three diagrams.  
Institution : None  
Submitted : No date

RAZUMOVA, L.A.; MEL'NIK, Yu.S.

Water supply for spring wheat existing under main cultivation  
methods in the Kazakhstan steppes. Meteor. i gidrol. no.3:15-24  
Mr '57. (MLRA 10:5)

(Kazakhstan--Wheat)  
(Kazakhstan--Soil moisture)

RAZUMOVA, L.A.

Agricultural and meteorological reasons for the loss of young oaks.  
Trudy TSIP no. 53:58-74 '57. (MLRA 10f8)  
(Oak) (Meteorology, Agricultural)

RAZUMOVA, L.A.

Changes in the agrometeorological conditions under the effect of  
shelterbelts. Trudy TSIP no.131:64-100 '63. (MIRA 16:9)

VERIGO, Stefaniya Antonovna; RAZUMOVA, Lyubov' Aleksandrovna; KULIK, M.S.,  
ctv. red.; CHEPELKINA, L.A., red.; VOLKOV, N.V., tekhn. red.;  
SUVCOROVA, L.D., tekhn. red.

[Soil moisture and its role in agricultural production] Pochven-  
naia vлага i ee znachenie v sel'skokhoziaistvennom proizvodstve.  
Leningrad, Gidrometeoizdat, 1963. 288 p. (MIRA 16:6)  
(Soil moisture) (Agriculture)

RAZUMOVA, L. L.

125. X-RAY STUDY OF HUMIC ACIDS (OF COAL). Kasatochkin, V.I.,  
Kukharenko, T.A., Zolotarevskaya, E. Yu, and Razumova, L.L.  
(Doklady Akad. Nauk SSSR (Rep. Acad. Sci. U.S.S.R.), 1950,  
vol. 74, 775-778; abstr. in Chem. Abstr., 1952, vol. 46, 1327,  
1228). Humic acids are aromatic hydroxy carboxylic acids of high  
molecular weight. Changes in their molecular structure with  
the gradual coalification were studied by X-ray examination of  
peats and soft coals of different localities, and artificially  
oxidized coal (with ratios C:H from 13.2 to 24.8). The interferences  
are increasingly distinct and sharper with advancing degree of  
coalification and molecular rearrangement. The humic acid from  
coal shows three maxima which correspond to a double hexagonal  
carbon lattice similar to that in graphite. With progressive  
coalification the ordered lattice of the aromatic nuclei of the  
humic acid increases: the disordered part appears peripheral owing  
to the groups of the molecules. The changes of the ratio C:H  
as an indicator for increasing condensation of aromatic nuclei  
parallel these diffraction phenomena. The calculated number of  
rings in the nucleus varies between 1 and 10 or more: the progressive  
coalification corresponds to their condensation to increasingly (over)

212. WOOD PITCH. Chernenko, A.A. and Borisov, I.I. (Zashchon.  
Teploin. (Fuel Econ.), May 1950, 35, 36; abstr. in Chem. Abstr.,  
1952, vol. 46, 1738). Dehydration and distillation of wood pitch  
give a solid and liquid fuel, both of which have low calorific  
values and are easily burned in any type of burner. Losses during

RAZUMOVA, L. L.

Chemical Abstracts  
Vol. 48 No. 5  
Mar. 10, 1954  
Fuels and Carbonization Products

Structural changes in coal on heat-treatment. V. I. Kasatochkin and L. L. Razumova, *Doklady Akad. Nauk S.S.R.* 88, 91 (1953).—Carbonization by heating org. compds. is characterized by formation and the growth of the flat hexagonal lattices of C atoms similar to the atomic monolayer in a graphite crystal. Part of the C as well as H, O, N, and other elements contained in the substance are eliminated as volatile matter. Formation and growth of the C lattices can be observed according to the origin and the increasing sharpness of the interference bands on the x-ray photographs of the products carbonized. The mol. lattices under the influence of the vector field orient themselves parallel one to the other. Interorientation of the C lattices, occurring simultaneously with their growth, is shown by the interference bands (001) as well as by the change of their sharpness on the x-ray photographs. Relation between temp. and C lattices is discussed.  
W. Farafonow

(2)

RAZUMOVA, L. L.

USSR

Changes in the fine structure of fossil coal in various stages of metamorphism. V. I. Kasatochkin, E. Yu Zolotarevskaya, and L. L. Razumova. Doklady Akad. Nauk S.S.R. 79, 316-18 (1951). Cf. C.A. 47, 11873e. The emergence of interference max. and the progressive increase in the sharpness of the x-ray diffraction pattern of a series of Donets basin fossil coals of increasing degree of metamorphism indicates the growth of mol: regularly with metamorphism. However, unlike graphite, in anthracite and lesser coals the hexagonal planar C atom lattices formed do not line up with three-dimensional regularity. It is concluded that under the natural conditions of metamorphism of org. substances, the carbon at the final stage of carbonization is similar to anthracite. X-ray analysis of vitrini and fusain sep'd, from coal in various metamorphic stages shows that only vitrini undergoes over-all structure changes typical of coal during carbonization. Fusain, carbonized in the early stages of metamorphic, contains some orientation in packs of parallel carbon lattices. The resistance of spore coal to carbonization leads to the preservation of the form of the structural elements during the early stages and eventually to a moi. structure relatively less aromatic and planar and more chainlike in nature. C. M. S.

Kuznetsov, I. I.

"X-Ray Investigation of Structural Changes in Coal Due to the Action of Temperature and Pressure," Cand Chem Sci, Inst of Mineral Fuels, Moscow, 1954. (KL, No 5, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)  
SC: Sxx. No. 598, 22 Jul 55

KHAKHOLIN, N.M.

MELANKHOLIN, N.M.; GRUM-GRZHIMAYLO, S.V.; VEDENEYEVA, N.Ye., otvetstvennyy  
redaktor, doktor fiziko-matematicheskikh nauk; RAZUMOVA, L.L.,  
redaktor izdatel'stva; NEVRAYEVA, N.A., tekhnicheskiy redaktor

[Methods of investigating the optical properties of crystals]  
Metody issledovaniia opticheskikh svoistv kristallov. Moskva,  
Izd-vo Akademii nauk SSSR, 1954. 190 p. (MLRA 7:10)  
(Crystalllography)

SHISHAKOV, N.A., KASATOCHKIN, V.I., professor; doktor khimicheskikh nauk,  
otvetstvennyy redaktor; RAZUMOVA, L.L., redaktor; ZEMLYAKOVA, T.A.,  
tekhnicheskiy redaktor

[Problems pertaining to the structure of silica glass] Voprosy  
struktury silikatnykh stekol. Moskva, Izd-vo Akademii nauk SSSR,  
1954. 191 p.  
(Glass)

RAZUMOVA, L. L.

FU

The effect of high pressures on the molecular structure of bituminous coals. L. L. Razumova, V. I. Kasatochkin, and M. P. Volarovitch. *Doklady Akad. Nauk S.S.R.* 103, 1033-4 (1955).—X-ray investigation of coal subjected for a short time to pressures of 20,000 kg./sq. cm. showed that the unidirectional compression causes a reorientation of the at. C lattice, with a preferred distribution of their normals in the direction of the active pressure. The conclusion was drawn that the vitrified mass of bituminous coal of medium metamorphic stages is converted to a liquid-flow system under pressure, similar to its state when heated. The conversion to the liquid state is connected with the destruction of side chains, which explains the ease of rotation of the lattice and the formation of anisotropy under pressure. W. M. Sternberg

(3)

BOROVIK-ROMANOVA, Tat'yan Fedorovna; VINOGRADOV, A.P., akademik, otvetstvennyy  
redaktor; RAZUMOVA, L.L., redaktor izdatel'stva; ZEMLYAKOVA, T.A.,  
tekhnicheskiy redaktor

[Spectrographic determination of alkali and alkaline earth elements  
(in water, plants, soils, and rocks)] Spektral'no-analiticheskoe  
opredelenie shchelochnykh i shchelochnozemel'nykh elementov (v vodakh,  
rasteniiakh, pochvakh i porodakh). Moskva, Izd-vo Akademii nauk SSSR,  
1956. 183 p.

(MIRA 9:12)

(Alkali metals) (Spectrum analysis)  
(Alkaline earth metals)

VAYNSTEYN Emmanuil Yefimevich; VINOGRADOV, A.P., akademik, redakter;  
RAZUMOVA, L.L., redaktor; MAKUNI, Ye.V., tekhnicheskiy re-  
dakter.

[Methods of quantitative X-ray spectrum analysis] Metody keli-  
chestvennogo rentgenospektral'nego analiza. Moskva, Izd-vo  
Akademii nauk SSSR, 1956. 221 p. (MLRA 9:6)  
(X-ray spectroscopy)

VAYNSHTEYN, Boris Konstantinovich; PINSKER, Z.G., professor, otvetstvennyy  
redaktor; RAZUMOVA, L.L., redaktor izdatel'stva; AUZAN, N.P.,  
tekhnicheskiy redaktor.

[Structural electronography] Strukturnaya elektronografiya. Moskva,  
Izd-vo Akademii nauk SSSR, 1956. 313 p. (MIRA 9:11)  
(Electronography)

RAZUMOVA, L. L.

X-ray analysis of the molecular structure of anthracite and coke. V. I. Kasatochkin and L. L. Razumova. *Izvest. Akad. Nauk S.S.R., Ser. Fiz.* 20, 767 (1956). It is assumed that coal is composed of hexagonal C networks, held together by side chains. Prolonged heating increases the amt. of C in networks as compared to C in the side chains. Examples of such transformations are given for different cokes. Two contrary processes take place during coke formation. First the material becomes plastic because of the destruction of side chains and 2nd the material becomes ordered by a parallel orientation of C networks. S. P.

Fuel

2

VAYNSHTEYN, Emanuil Yefimovich; VINOGRADOV, A.P., akademik,  
otvetstvennyy redaktor; RAZUMOVA, L.I., redaktor izdatel'stva;  
MAKUNI, Ye.V., tekhnicheskiy redaktor

[Apparatus of increased intensity and contrast for X-ray  
spectrum analysis; studies on the curves of crystals and new  
focusing spectrographs] Svetosil'naia apparatura dlia rentgenospeku-  
tral'nogo analiza; issledovanie izgiba kristallov i novye  
fokusiruiushchie spektrografy. Moskva, Izd-vo Akad. nauk SSSR,  
1957. 119 p.  
(X-RAY SPECTROSCOPY)

b 5 b7c

ACC NR: AP6016675

SOURCE CODE: UR/0106/65/000/011/0055/0060

AUTHOR: Razumov, L. D.

ORG: none

TITLE: Approximate calculation of noise voltages in a low-frequency two-wire circuit in consideration of equipment assymetry

SOURCE: Elektrosvyaz', no. 11, 1965, 55-60

TOPIC TAGS: communication line, alternating current, electric power transmission, railway equipment

ABSTRACT: A method for calculating the influence of high voltage ac railroad power lines on low frequency two-wire communications lines is presented. The formula

$$K_n = \frac{U_t \text{ pez}}{U_t \text{ 800}}$$

is derived, taking into consideration the error involved in calculating the influence using only one frequency (such as 800 cps), where  $U_t \text{ pez}$  is determined by the formula

$$U_t \text{ pez} = \sqrt{\sum_{k=1}^{tk} (U_{tk} p_k)^2} \text{ in V}$$

Card 1/2

UDC: 621.391.837.41

Z

L 25937-66

ACC NR: AP6016675

and is the resulting noise voltage in the lines, where  $U_{tk}$  is the signal voltage caused by the k-th harmonic component of the railroad net,  $p_k$  is the acoustic action coefficient at the k-th harmonic component; and  $U_t 800$  is the voltage calculated at 800 cps. Orig. art. has: 3 figures, 8 formulas and 1 table. [JPRS]

SUB CODE: 17, 09, 10 / SUBM DATE: 07Apr65 / ORIG REF: 002

Card 2/2 FW

RAZUMOVA, L.I.; MEL'NIKOV, I.A.; LEMAZHIKHIN, B.K.; FRANK, G.M.

Shortening glycerinated muscles with a damaged two-dimensional  
lattice of filaments. Biofizika 10 no.1:194 '65.

(MIRA 18:5)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

VLASOVA, L.V., SOKOLOV, V.K., MUL'KOV, . . .

X-ray identification of I-meromyosin in a muscle structure,  
Biofizika 9 no. 1,196-152 '64. (MIRA 17;7)

1. Institut Biologicheskoy Fiziki AN SSSR, Moskva.

RAZUMOVA, V.I.; LEMASHKIN, B.K.; MEL'NIKOV, I.F.; FRANK, G.M.

X-ray study of structural reconstructions in a striated muscle  
following changes in its length. Dokl. AN SSSR 157 no.3:688-  
691 JI '64.  
(MIRA 17:7)

I. Chlen-korrespondent AN SSSR (for Frank),

MEL'NIKOV, L.A.; RAZUMOVA, L.L.; LEMAZHIKHIN, B.K.

Mechanisms of muscle contraction (based on X-ray data). Dokl.  
AN SSSR 151 no.4:955-958 Ag '63. (MIRA 16:8)

1. Institut biologicheskoy fiziki AN SSSR. 2. Chlen-korrespondent  
AN SSSR (for Frank).  
(MUSCLES--MOTILITY)

RAZUMOVA, L.L.; GUN TSU-SYUN: [Kung Tsu-hsin]; KAYUSHIN, L.P.; PULATOVA, M.K.

Studying various structural forms of the protein myosin by the  
electron paramagnetic resonance method. Dokl. AN SSSR 146 no.5:  
1197-1200 O '62. (MIRA 15:10)

1. Institut biologicheskoy fiziki AN SSSR. Predstavleno  
akademikom V.N.Korirat'yevym.  
(MYOSINS) (PARAMAGNETIC RESONANCE AND RELAXATION)

RAZUMOVA, L.B.

Possibilities of X-ray evaluation of some models of muscle contraction;  
Biofizika 6 no.6:650-661 '61. (MLRA 15:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(MUSCLES—RADIOGRAPHY) (PROTEINS)

RAZUMOVA, L.I..

X-ray diffraction studies of biological objects. Zhur.strukt.khim.  
2 no.3:337-345 My-Je '61. (MIRA 15:1)

1. Institut biologicheskoy fiziki AN SSSR.  
(Proteins) (X rays--Diffraction)

RAZUMOVA, L.L.; YUNTS, V.M.

Some structural features of different muscles detected with the  
aid of the distribution curves of X-ray scattering intensity.  
Dokl. AN SSSR 141 no.5:1220-1223 D '61. (MIRA 14:12)

1. Institut biologicheskoy fiziki AN SSSR. Predstavлено  
академиком V.N. Kondrat'yevym.  
(MUSCLES—~~RADIOGRAPHY~~)

VINOGRAD-FINKEL', F.R.; RAZUMOVA, L.L.; KUDRYASHOVA, S.N.

Use of X-ray photography in the examination of frozen blood.  
Biofizika 5 no. 2:229-234 '60. (MIRA 14:4)

1. Tsentral'nyy ordena Lenina Institut perelivaniya krovi, Moskva.  
(for Vinograd-Finkel'). 2. Institut biologicheskoy fiziki AN SSSR,  
Moskva (for Razumova). 3. Biologo-pochvennyy fakul'tet Moskovskogo  
gosudarstvennogo universiteta im. M.V. Lomonosova (for Kudryashova)./  
(BLOOD—RADIOGRAPHY)

RAZUMOVA, L.L.; FRANK, G.M.

X-ray studies of muscle structure using different fixation  
methods. Biofizika 6 no. 1:24-29 '61. (MIRA 14:2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(MUSCLE) (MICROSCOPY—TECHNIQUE)

17(4)

SOV/20-128-1-50/58

AUTHORS: Razumova, L. L., Lemazhikhin, B. K., Lebedev, L. A.,  
Pen'kina, V. S.

TITLE: Some Differences Observed in the X-Ray Study of Keratin From Feathers

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 1, pp 186-189  
(USSR)

ABSTRACT: The macro structure of coverts and supporting feathers (wing-feathers and rudder-feathers of the tail) shows certain differences depending on the function of the concerned feathers. The kind of flight also has a certain influence on the structure. The authors tried to answer the question whether the function of the feathers also has an influence on the molecular structure. Characteristic features of the molecular structure can be investigated by means of an X-ray diffraction method. X-ray photographs made (with a sufficient solvent power) of the keratin of feathers (Fig 1) are characterized by clearness and richness of reflexes unusual for fibril albumins. The authors succeeded in getting some information regarding the dependence of the keratin structure on the existence of amino acids and

Card 1/3

SOV/20-128-1-50/58

Some Differences Observed in the X-Ray Study of Keratin From Feathers

also with regard to the role of S-S and hydrogen compounds in the structural packing. X-Ray examinations of three test series were carried out by means of X-ray cameras with collimator with a diameter of 0.1 mm. A micro tube for focusing of the Institut biofiziki AN SSSR (Institute of Biophysics AS USSR) was used. The X-ray was directed perpendicularly on the surface of the feathers. The investigations showed that the structure of wing feathers on non-flying birds (ostrich) is the same as that of coverts of flying birds. It is not as orderly as the structure of the wing feathers strained by flying. This fact proves a connection between the molecular structure of feathers and their function. A dependence of the molecular structure on the kind of flight was not found. The authors thank the staff members of the Zoologicheskiy muzey Moskovskogo gosudarstvennogo universiteta (Zoological Museum of the Moscow State University), Professor N. A. Gladkov, A. M. Sudilovskaya, M. V. Vasil'yeva, the staff members of the Institut morfologii zhivotnykh (Institute of the Morphology of Animals), Professor G. S. Shestakov, T. L. Borodulin, and the staff members of Moskovskiy zoopark (Moscow Zoological

Card 2/2

SOV/20-128-1-50/58  
Some Differences Observed in the X-Ray Study of Keratin From Feathers

Gardens), R. I. Afonskaya, M. P. Kagayev, for their assistance in selecting the specimens. There are 3 figures and 7 references.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics of the Academy of Sciences, USSR)

PRESENTED: April 25, 1959, by V. N. Kondrat'yev, Academician

SUBMITTED: April 22, 1959

Card 3/3

2(4)

AUTHORS: Tikhomirova, N. N., Lukin, B. V., Razuova, L. I.,  
Voyevodskiy, V. V., Corresponding Member, Academy of Sciences,  
USSR

SOV/20-122-2-27/42

TITLE: Using Electron Paramagnetic Resonance and Roentgenography in  
Studying the Structure of the Carbonization Products Obtained  
From Carbon-Containing Substances  
(Issledovaniye stroyeniya produktov karbonizatsii  
nukleino-soderzhashchikh veshchestv metodom elektronnogo para-  
magnitnogo rezonansa i rentgenografii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 2, pp 264-266  
(USSR)

ABSTRACT: The method of paramagnetic electron resonance permits im-  
mediate detection of free radicals in the investigated system  
and a measurement of their concentration. In order to find  
the possibilities which are given by the investigation of  
the structure of carbonized substances by the  
method of paramagnetic electron resonance (and simultane-  
ously by radiography), the authors investigated the structural  
variations caused by the carbonization of polyvinyl chloride

Card 1/3

SOV/2o-122-2-27/42

Using Electron Paramagnetic Resonance and Roentgenography in Studying the Structure of the Carbonization Products Obtained From Carbon-Containing Substances

and polyvinylidenechloride. The carbonization was carried out in an inert atmosphere in the temperature interval of 350-700°C. The signal of the electron paramagnetic resonance (which indicates the existence of free radicals) appears in the first stages of the carbonization of polyvinyl chloride and polyvinylidenechloride (beginning with 350°). A diagram shows the variation of the signal width for the 2 investigated substances as a function of the carbonization temperature. A relatively wide line (7 Gauss) in polyvinyl chloride is an argument in favor of an essential influence of the hyperfine splitting up on hydrogen nuclei. Such great widths are characteristic of some natural coals. In the case of polyvinylidenechloride (especially in the initial stages of carbonization) the line of paramagnetic electron resonance is by far narrower than that of the product of the carbonization of polyvinyl chloride. According to radiographic data, an increase of the calcination temperature to 450° only slightly changes the character of the products of the carbonization of polyvinyl chloride. Other results are then discussed.

Card 2/3

SCV/20-122-2-27/42

Using Electron Paramagnetic Resonance and Roentgenography in Studying the  
Structure of the Carbonization Products Obtained From Carbon-Containing  
Substances

According to these results, the appearing of a wide signal  
is connected with the existence of free valences near the  
individual carbon nets or blocks in which conduction elec-  
trons appear. There are 2 figures.

SUBMITTED: June 28, 1958

Card 3/3

TIKHOMIROVA, N.N.; LUKIN, B.V.; RAZUMOVA, L.L.; VOYEVODSKIY, V.V.

Structural study of carbonization products of carbon-containing substances by means of electron paramagnetic resonance and radiography. Dokl. AN SSSR 122, no. 2:264-266 S '58. (MIRA 11:10)

1. Chlen-korrespondent AN SSSR (for Voyevodskiy).  
(Carbonization)  
(X-ray spectroscopy)

RAZUMOVA, L. L.

B-5

Category: USSR / Physical Chemistry - Crystals

Abs Jour: Referat Zhur-Khimiya, No 9, 1957: 29789

Author : Kasatochkin V. I., Razumova L. L.

Inst : Academy of Sciences USSR

Title : X-Ray Analysis of Molecular Structure of Coal and Coke

Orig Pub: Izv. AN SSSR. Ser. fiz., 1956, 20, No 7, 751-754

Abstract: On the basis of the concepts of macromolecular structure of carbonaceous matter of coal and coke, the interference function of x-ray scattering is expressed depending upon probability of orderly packing of W network of the C atoms which constitute the scattering units. Widening of the 002 interference band on the roentgenograms, taken as index of inter-reticular orderliness, is determined by magnitude of W, dimension of coherent volumes. The  $4\pi r^2 \Delta f$  curves of coke, obtained as a result of integral analysis of intensity curves, are interpreted as the result of superposition of  $4\pi r^2 \Delta f$  functions of the different structural forms of C in coke -- of carbon networks and chains. The difference in  $4\pi r^2 \Delta f$  curves

Card : 1/2

-57-

VLADIMIROVA, V. M.; RAZUMOVA, L. S.

Determination of indium in ores by rhodamine 6G. Metod.  
anal. khim.reak. i prepar. no. 4:82-85 '62. (MIRA 17:5)

1. Gosudarstvennyy institut redkikh metallov (GIREDMET).

VLADIMIROVA, V.M.; DAVIDOVICH, N.K.; KUCHMISTAYA, G.I.; RAZUMOVA, L.S.

Determination of tellurium in arsenic by a fluorescent method. Zav.  
lab. 29 no.12:1419-1421 '63. (MIRA 17:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redko-  
metallicheskoy promyshlennosti.

GOLIKOV, S.N. (Leningrad); RAZUMOVA, M.A. (Leningrad)

Methodology for the study of selective effects of pharmacological substances on central and peripheral choline-reactive systems.  
Farm. i vok. 27 no.4:495-498 Jl-Ag '64.

(MIRA 17:11)

RAZUMOVA, M.A.; SELLIVANOVA, A.T.

Effect of amino alcohols of the acetylene series on the central nervous system. Biul. eksp. biol. i med. 60 no.11:58-62 N '65.  
(MIRA 19:1)

1. Laboratoriya farmakologii (zav. - chlen-korrespondent AMN SSSR prof. S.N. Golikov) Instituta toksikologii Ministerstva zdravookhraneniya SSSR, Leningrad. Submitted April 23, 1964.

GOLIKOV, S.N.; RAZUMOVA, M.A.; SELIVANOVA, A.T.

N-colinolytics of predominantly central action. Farm. i toks. 28  
no.1:20-23 Ja-F '65. (MIRA 18:12)

I. laboratoriya farmakologii (zav. - chlen-korrespondent AMN SSSR  
prof. S.N.Golikov) Instituta toksikologii Ministerstva zdravo-  
okhraneniya SSSR, Leningrad. Submitted October 3, 1963.

KAMENOVSAYA, N. R.; Master Tech Sci (diss) -- "Experimental study of the phenomenon of wave-formation in high-speed streams". Moscow, 1958. 21 pp  
(Min Agric USSR, All-Union Order of Lenin Acad Agric Sci im V. I. Lenin, All-Union Sci Res Inst of Hydraulic Engineering and Soil Improvement im A. N. Kostyakov), 110 copies (KL, No 12, 1959, 129)

L 12028-66

EWT(1)/EWA(j)/EWA(b)-2

RO

ACC NR: AP5028886

SOURCE CODE: UR/0219/65/060/011/0058/0062

46  
40  
B

AUTHOR: Razumova, M. A.; Selivanova, A. I.

ORG: Laboratory of Pharmacology, Institute of Toxicology, Ministry of Health SSSR,  
Leningrad (Laboratoriya farmakologii, Instituta toksikologii Ministerstva zdravookh-  
raneniya SSSR)

TITLE: Influence of amino alcohols of the acetylene series on the central nervous  
system

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 11, 1965, 58-62

TOPIC TAGS: amino alcohol, central nervous system, pharmacology, conditioned reflex,  
neurophysiology

ABSTRACT: The effect of amino alcohols of the acetylene series on the central M- and  
H-cholinoreactive systems and conditioned activity was studied in mice, rabbits, and  
dogs as part of a search for drugs useful in the therapy of parkinsonism, hyperkinesia  
and other diseases accompanied by spastic states but without serious side effects.  
Most of the 9 drugs tested had a fairly marked central M- and H-cholinolytic action.  
The quaternary compounds had a much weaker central M-cholinolytic action. The unsatu-  
rated amino alcohols caused transient and weaker impairment of conditioned activity  
in much larger doses (almost 5-10 times larger) than did the amino ethers and amino

UDC: 615.787-092.259:[612.022.1 + 612.825.1]

Card 1/2

L 12028-66

ACC NR: AP5028886

alcohols derived from 1,3-aminopropanol.<sup>4</sup> This effect is ascribed by the authors to the decrease in M-cholinolytic activity<sup>6</sup> and intensification of nicotinolytic activity. The decrease in food excitability and inhibition of unconditioned secretion following administration of the compounds, while the conditioned connections were preserved and the animals responded to conditioned stimuli, imply that the unsaturated amino alcohols act directly on the subcortical structures. The authors recommend these compounds for the treatment of parkinsonism and other types of hyperkinesias of central etiology. They also note that one of the amino alcohols (Difardin) has been found effective in clinical trials conducted by the Kirov Academy of Military Medicine for Meniere's syndrome, bronchial asthma, and other diseases. Orig. art. has: 1 figure, 1 table. The paper was presented by N. N. Savitskiy, Active member of AMN SSSR, 23 Apr 64.

SUB CODE: 06/ SUBM DATE: 23Apr64/ ORIG REF: 010/ OTH REF: 005

Card 2/2

RAZUM'IA, N.N. & MALKOV, A.P.

Effect of methyl esters of some aminoalkyl esters of disubstituted  
acetic and cyclolic acids on the conditioned reflex activity in dogs.  
Farm. i toks. 2) no.345/44-473 May-Ju '65.

(MIRA 13:8)

I. Laboratoriya farsakologii (zav. - chlen-korrespondent AMN SSSR  
prof. N.N. Gritser) V. vstavka taktilnegi Ministerstva zdravookh-  
raniatiya SSSR, Leningrad.

RAZUMOVA, N.S.; ZAKHAROV, B.P., inzhener, redaktor; DUGINA, N.A.,  
tekhnicheskiy redaktor.

[Materials and mixtures for making molds] Formovochnye materialy  
i smesi. Pod red. B.P.Zakharova. Moskva, Gos.nauchno-tekhn.  
izd-vo mashinostroit.lit-ry, 1954. 35 p. (Nauchno-populiarnaya  
biblioteka rabochego-liteishchika, no.3) (MLRA 8:11)  
(Molding(Founding))

*Razumov I.M.*  
PLOTNIKOV, I.M., inzh.; RAZUMOV, V.N., kand.tekhn.nauk; OBORINA, V.I., inzh.;  
RAZUMOVA, M.S., inzh.; KORYAKOV, A.N., inzh.; KUZNETSOV, N.V., inzh.

Making shell molds for frames and plates of filter presses.  
Mashinostroitel' no.10:17-19 O '57. (MIRA 10:11)  
(Shell molding (Founding)) (Filter presses)

*N. I. Zemtsov / 11.5*  
PLOTNIKOV, Ivan Mikhaylovich; RAZUMOV, Valer'yan Nikitich; OBORINA,  
Valentina Ivanovna; RAZUMOVA, Murshida Salimovna; KUZNETSOV,  
Nikolay Vladimirovich; KORYAKOV, Aleksey Nikiforovich;  
VOLPYANSKIY, L.M., inzh., retsenzent; SARAFANNIKOVA, G.A.,  
tekhn.red.

[Assembly line manufacture of shell forms] Potochnoe izgotovlenie  
obolochkovykh form. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
stroit. lit-ry, 1957. 42 p.  
(MIRA 11:5)  
(Shell molding (Founding))

## Revised Markings for the VRA

## PHASE I BOOK EXPLOITATION

622

Gobrotvorskiy, Mikhail Mikhaylovich (Deceased) and Razumova Murshida Salimovna

Spravochnik po priyemke i ispytaniyu formovochnykh materialov i smesey (Handbook for the Inspection and Testing of Molding Materials and Mixtures) 2d ed. Moscow, Mashgiz, 1957. 217 p 10,000 copies printed.

Reviewer: Kumanin, I. B., Candidate of Technical Sciences; Tech. Ed.: Yermakov, N. P.; Managing Ed. of the Mashgiz, Ural-Siberian Branch: Bezukladnikov, M. A., Engineer.

PURPOSE: The book is intended for engineering and technical personnel, Laboratory and OTK (Technical Control Division) employees and foundry specialists.

**COVERAGE:** This second edition of the Handbook is the result of reader response and the advent of new methods and media in the field. The principal GOST (State Standards) and TU (Technical Specifications) specifications for raw materials for molding used in the foundries of metallurgical and machine-building plants are presented. New molding materials which are being introduced

Card 1/10

Handbook for the Inspection (Cont.)

622

into founding are also briefly discussed. Methods of testing the basic and secondary molding materials and the instruments used for testing are described. The author recommends compositions for molding mixtures, facings and coatings. There are 54 Soviet references.

TABLE OF CONTENTS:

Introduction	7
Ch. I. Raw Materials for Molding	9
Classification of molding materials	9
Molding sands	9
Classification	9
Technical requirements	12
Sands widely used in foundries	18
Molding clays	19
Classification	19
Technical specifications	20
Clays used widely in foundries	21
Bonding materials	21
Parting materials	34

Card 2/10

Handbook for the Inspection (Cont.)

622

Crystalline (silver) graphite for foundry purposes	34
Cryptocrystalline (amorphous) foundry graphite from Noginsk deposits	37
Coal dust	38
Charcoal dust	38
Powdered silica	38
Powdered coke	39
Mazut	40
Chromite	40
Chrome-magnesite	40
Ground talc	41
Other materials	41
Sawdust	41
Ground-chamotte	42
Ch. II. Molding Sand Mixtures and Facings	43
Classification of molding and core sand mixtures	43
Molding and core sand mixtures	43
Mold facings	47
Ch. III. Methods of Sampling and Testing Basic Molding Materials	84
Card 3/10	

Handbook for the Inspection (Cont.)

622

Materials	84
Sands and molding sand mixtures	84
Selection and preparation of samples	84
Determination of moisture	87
Determination of grain composition	90
Determination of permeability to gas	97
Determination of compressive strength	106
Determination of tensile strength	108
Determination of crumbling tendency	110
Determination of the hardness of green sand samples and molds	111
Determination of the hardness of dry molds and cores	112
Molding clays	113
Sampling and the preparation of samples	113
Determination of moisture	115
Determination of strength in the moist state	115
Determination of strength in the dry state	116
Determination of grain composition	116
Determination of colloidality	117
Chemical analysis of sands and clays	117
General principles	117
Determination of hygroscopic moisture	119

Card 4/10

Handbook for the Inspection (Cont.)

622

Determination of loss due to calcination	119
Determination of silicon dioxide	120
Determination of the sum total of ferric and aluminum oxides and titanium dioxide	124
Determination of ferric oxide	126
Determination of titanium dioxide	130
Determination of aluminum oxide	133
Determination of calcium oxide	137
Determination of magnesium oxide	139
Determination of the sum total of alkali metal oxides	140
Determination of potassium oxide	141
Determination of sodium oxide	143
Determination of total sulfur	144
Determination of sulfates	145
Determination of sulfides	145
Determination of refractoriness of sands and clays	145
Sampling and preparing specimens	146
Testing methods	

Card 5/10

622

Handbook for the Inspection (Cont.)

Ch. IV. Methods of Sampling and Laboratory Testing of Auxiliary Molding Materials	148
Bonding materials	148
General principles	148
Sampling in testing linseed oil and the 4GU binder	151
Sampling in testing the GTF and P binders	153
Sampling in testing the KT and KD emulsion binders	154
Sampling in testing resin	154
Sampling in testing dextrin and pectic glue	156
Sampling in testing sulfite waste concentrates liquor	157
Sampling in testing the SP, SB, DP, and BK bonding materials	157
Sampling in testing molasses and the KV binder	157
Sampling in testing liquid glass	158
Sampling in testing pulverized bakelite	158
Sampling in testing bakelite lac	159
Determination of specific gravity	160
Determination of iodine number	161
Determination of the content of unsaponifiable substances	163
Determination of relative viscosity	166
Determination of sediments	166
Determination of the saponification number	

Card 6/10 .

622

Handbook for the Inspection (Cont.)

Determination of the content of mechanical admixtures in the CTF binder	167
Determination of the content of mechanical admixtures in resin	168
Determination of sulfur content in the CTF binder	169
Determination of the water content in the CTF binder	171
Determination of moisture content in resin	174
Determination of moisture content in dextrin	174
Determination of the water extract reaction in the CTF binder	175
Determination of the formation of homogenous emulsion in the KT and KD binders	175
Determination of the ash content in resin	176
Determination of ash content in dextrin	176
Determination of the ash content in molasses, in KV binder and in pectic glue	177
Determination of the softening point of resin	177
Determination of the acidity of dextrin	181
Determination of active acidity in sulfite waste liquor concentrates	182
Determination of the degree of dextrin solubility	182

Card 7/10

622

Handbook for the Inspection (Cont.)

Determination of the content of dry substances in sulfite waste liquor concentrates, pectic glue, molasses and the KV binder	184
Determination of the contents of water insoluble substances in sulfite waste liquor concentrates	184
Determination of the modulus of water glass	185
Determination of the tensil strength of dry specimens in industrial sampling	187
Parting materials	188
Crystalline and cryptocrystalline graphite	188
Selection and preparation of samples	189
Determination of the ash content	189
Determination of moisture	189
Determination of the fineness of grinding	190
Coal	191
Determination of moisture	192
Determination of the ash content	193
Determination of the yield of volatile substances	196
Determination of the sulfur content	196
Powdered quartz	197
Determination of grain composition	
Chromite	

Card 8/10

	622
Handbook for the Inspection (Cont.)	197
Determination of the Cr <sub>2</sub> O <sub>3</sub> content	199
Determination of the CaO content	199
Ground talc	199
Determination of the calcined residue insoluble in hydrochloric acid	200
Determination of moisture	200
Determination of the quality of grinding	202
Ch. V. Nonstandardized Methods of Testing Molding Materials and Mixtures	202
General principles	202
Testing at room temperature	203
Determination of flowability	204
Determination of adhesiveness	205
Determination of hygroscopicity of a dry specimen	205
Testing at elevated temperatures	205
Determination of gas-forming capacity	207
Testing of molding materials at elevated temperatures using a universal instrument	207

Card 9/10

622

Handbook for the Inspection (Cont.)

Determination of thermal expansion	210
Determination of plasticity	210
Determination of compressive strength	211
Determination of pliability	211
Bibliography	212
	215

Index

AVAILABLE: Library of Congress

GO/gmp  
10/13/58

Card 10/10

RAZUMOVA, Murshida Salimovna; DUGINA, N.A., tekhn. red.

[Molding materials and mixtures] Formovochnye materialy i smesi.  
Moskva, Mashgiz, 1962. 46 p. (Nauchno-populiarnaya biblioteka  
rabochego-litейchika, no.3) (MIRA 16:2)  
(Sand, Foundry)

RAZUMOVA, M.S  
25(1)

PHASE I BOOK EXPLOITATION SOV/1752

Plotnikov, Ivan Mikhaylovich, Valer'yan Nikitich Razumov,  
Valentina Ivanovna Oborina, Murshida Salimovna Razumova, Nikolay  
Vladimirovich Kuznetsov, and Aleksey Nikiforovich Koryakov

Potochnoye izgotovleniye obolochkovykh form (Assembly Line Manu-  
facture of Shell Molds) Moscow, Mashgiz, 1957. 42 p. (Series:  
Obmen tekhnicheskim opytom) 4,000 copies printed.

Reviewer: L.M. Volpyanskiy, Engineer; Tech. Ed.: G.A. Sarafannikova;  
Executive Ed. (Ural-Siberian Division, Mashgiz): M.A. Bezukladnikov,  
Engineer.

PURPOSE: This book is intended for engineering workers in foundry  
shops and design establishments concerned with the development  
of industrial molding methods.

COVERAGE: This book reports on experience gained by the mixed  
crews of the Uralkhimmashzavod (Ural Chemical Machinery Plant)  
and the Sverdlovsk branch of the NIIKhIMMAS (Scientific

Card 1/3

Assembly Line Manufacture of Shell Molds

SOV/1752

Research Institute of Chemical Machinery) in organizing mechanized mass production of large shell molds from blends containing water glass. It deals specifically with production of molds for casting large filter press frames and plates (62 to 215 kg. and 1350 x 900 mm. and 1720 x 1080 mm.). The author also describes construction of equipment used in the above process. No personalities are mentioned. There are 14 Soviet references.

TABLE OF CONTENTS:

Preface	3
Mold Mixtures With Water Glass	5
Determining Basic Factors of the Method of Making Shell-Molds For Casting Filter Press Frames and Plates	10
Industrial Experimentation and Application of Mass Production of Filter Press Casting	20
Card 2/3	

Assembly Line Manufacture of Shell Molds	SOV/1752
Conclusion	36
Appendix	38
Bibliography	42

AVAILABLE: Library of Congress

GO/jmr  
6-22-59

Card 3/3

RAZUMOVA, Murshida Salimovna; SARAFANNIKOVA, G.A., tekhn.red.

[Molding materials and mixtures] Formovochnye materialy i smesi.  
Izd. 2-oe. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.  
lit-ry, 1957. 43 p. (Nauchno-populiarnaya biblioteka rabochego-  
liteishchika, no.3) (MIRA 11:4)  
(Foundry machinery and supplies)

RAZUMOVA, MURSHIDA SIRIMOVNA  
DOBROTVORSKIY, Mikhail Mikhaylovich [deceased]; RAZUMOVA, Murshida Salimovna;  
KUMANIN, I.B., kand.tekhn.nauk, retsenzent; YERMAKOV, N.P., tekhn.  
red.

[Manual on inspection and testing of molding materials and mixtures]  
Spravochnik po priemke i ispytaniiu formovochnykh materialov i  
smesei. Izd. 2-oe. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
stroit. lit-ry, 1957. 220 p. (MIRA 11:4)  
(Sand, Foundry)

М.С. 10.5.

KUZLEV, Mikhail Yakovlevich; SKVORTSOV, Aleksey Anatol'yevich; SMELYAKOV,  
Nikolay Nikolayevich; ZOBNIK, B.P., kandidat tekhnicheskikh nauk,  
retsenzent; BORUTSKIY, A.A., dotsent, otvetstvennyy redaktor;  
VOLPYANSKIY, L.M., inzhener, redaktor; GIMMELMAN, H.R., inzhener,  
redaktor; DEMAKOV, A.F., inzhener, redaktor; ZAKHAROV, B.P., inzhener,  
redaktor; ZVEREV, K.M., inzhener, redaktor; KOKOVINA, A.S., inzhener,  
redaktor; RAZUMOVA, M.S., inzhener,  
redaktor; NESTEROV, B.A., inzhener, redaktor; SIDORENKO, R.A., inzhener, redaktor;  
dat tekhnicheskikh nauk, redaktor; DUGINA, N.A., tekhnicheskiy  
redaktor

[Foundry worker's handbook] Spravochnik rabochego-litейщика.  
Izd. 2-oe, dop. i perer. Moskva, Gos. nauchno-tekhn. izd-vo  
mashinostroit. lit-ry, 1956. 634 p. (MIRA 10:4)  
(Foundry)

KUZELEV, Mikhail Yakovlevich; SKVORTSOV, Aleksey Anatol'yevich;  
SMEYAKOV, Nikolay Nikolayevich; DUBITSKIY, G.M., doktor  
tekhn. nauk, retsenzent; ZOBININ, B.F., kand. tekhn. nauk,  
retsenzent; KOROTKOV, V.G., kand. tekhn. nauk, retsenzent;  
LEVCHENKO, P.V., kand. tekhn. nauk, retsenzent; MAKURIN, P.I.,  
kand. tekhn. nauk, retsenzent; PASTUKHOV, A.I., kand. tekhn.  
nauk, retsenzent; PORUCHIKOV, Yu.P., kand. tekhn. nauk, re-  
tsenzenz; ROZENBERG, I.A., kand. tekhn. nauk, retsenzent;  
SERGEICHEV, N.F., kand. tekhn. nauk, retsenzent; FILIPPOV,  
A.S., kand. tekhn. nauk, retsenzent; YAROSHENKO, Yu.G., kand.  
tekhn. nauk, retsenzent; BAZAROVA, N.V., inzh., retsenzent;  
BLANK, E.M., inzh., retsenzent; VOLPYANSKIY, L.M., inzh.,  
retsenzent; ZAKHAROV, B.P., inzh., retsenzent; MYSHALOV, S.V.,  
inzh., retsenzent; RAZUMOVA, M.S., inzh., retsenzent;  
SHABALIN, L.A., inzh., retsenzent; SHKUNDI, R.M., inzh., re-  
tsenzenz; DUGINA, N.A., tekhn. red.

[Handbook of foundry practice] Spravochnik rabochego-  
liteishchika. 1zd.3. Moskva, Mashgiz, 1961. 584 p.  
(MIRA 15:4)  
(Founding--Handbooks, manuals, etc.)

5559. Razumova, N. S. Formovoechnye materialy i smesi. Pod red. R. P. Zakhareva.  
Moskva-Sverdlovsk, Vashiriz, (Uralo-Sib. otd-niye), 1954. 39s. s ill. 20 sm.  
(Чаеч., смеси. б-ка рабоче-литературника. Вып. 3). 6000 экз. 65к.----  
(46-841)н 621.742

So: Knizhnye letopis', Vol. 1. 1955

Z  
RAZUMOVA, M      S

N/5  
615.911  
.R2

Formovochnyye materialy i smesi (Casting materials and mixtures)  
Pod red. B. P. Zakharova. Moskva, Mashgiz, 1954.  
35 p. Diagrs. (Nauchno-populyar-naya biblioteka rabochego-  
liteyshchika, vyp. 3)  
"Rekomenduyemaya Literatura": p. (37)

RAZUMOVA, M.S.

Spravochnik Po Priyemke i Ispytaniyu Formovochnykh Materialov i Smesey (Reference Book on Acceptance and Testing of Molding Materials and Mixtures, by) M. M. Dobrotvorskiy (and) M.S. Razumova. Moskva, Mashgiz, 1953.  
134 P. Diagrams., Tables.  
"Literatura": P. (131)

SO: N/5  
741.4  
.D6

DOBROTVORSKIY, M.M.; RAZUMOVA, M.S.

[Reference book on acceptance and testing of molding materials and mixtures] Spravochnik po priemke i ispytaniyu formovochnykh materialov i smesei. Sverdlovsk, Gos. nauchno-tehn. izd-vo mashinostroit. i sstroit. lit-ry, 1953. 134 p. (MLRA 7:1)

(Sand, Foundry--Testing)

RAZUMOVA, N. A.

Dissertation: "Synthesis and Study of Propylene Glycol Phosphorous Acid and Its Derivatives."  
Cand Chem Sci, Kazan' Chemicotechnological Inst, Kazan', 1954. Referativnyy Zhurnal--  
Khimiya, Moscow, No 13, Jul 54.

SO: SUH No. 356, 25 Jan 1955

PAZUMOVA, N.A.; TVERSKOV, V.A. I.M.

Phosphorus-containing heterocycles. Part 2: Preparation of esters  
of 1-hydroxyphospholines oxide and its homologs. Zhur. ob. khim.  
34 no.9:2949-2953 S '64. (MIRA 17:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

RAZUMOVA, N.A.; PINTROW, A.A.

Condensation of glycolphosphoryl chlorides with  $\alpha,\beta$ -unsaturated ketones. Dokl. AN SSSR 158 no.4:907-910 G '64. (MIRA 17:11)

I. Leningradskiy tekhnologicheskiy institut im. Lensoveta. Predstavleno akademikom M.I. Kabachnikom.

RAZUMOVA, N. A.

USSR/Chemistry

Card : 1/1

Authors : Arbuzov, A. E., Academician, and Razumova, N. A.

Title : About esters of propyleneglycolphosphorous acid and their conversions

Periodical : Dokl. AN SSSR, 97, Ed. 3., 445 - 448, July 21, 1954

Abstract : The experimental results obtained during the synthesis and conversion of esters of propyleneglycolphosphorous acid, are described. The factors affecting the regrouping of radicals and the reaction process, are explained. The structure and constants of the compounds, synthesized by the radical regrouping method, are given in table. Seven references: 6-USSR and 1-USA. Tables.

Institution : The S. M. Kirov Chemical-Technological Institute, Kazan

Submitted : May 20, 1954

Kazumova, N.A.

Properties and transformations of esters of propylene glycol and phosphorous acid. I. A.B. Arbuzov and N.A. Kazumova. Bull. Acad. Sci. U.S.S.R. Div. Chem. Sci. 1956, 179-83 (Engl. translation).—See C.A. 50, 13735c. R.M.R. *2*

PM  
LFH

ARBUZOV, A.Ye.; RAZUMOVA, N.A.

Properties and conversions of propyleneglycolphosphorous acid esters.  
Part 1. Addition reactions. Izv.AN SSSR Otd. khim. nauk no.2:187-192  
F '56. (MLRA 9:7)

I. Kazanskiy khimiko-tehnologicheskiy institut imeni S.M.Kireva.  
(Phosphorous acid)

SOV/156 -58-3-32/52

AUTHORS: Petrov, A. A., Razumova, N. A., Genusov, M. L.

TITLE: The Reaction of Chloroprene With 2-Chloropentene-3 in the Presence of Tin(II)Chloride (Reaktsiya khloroprena s 2-khlorpentenom-3 v prisutstvii khlornogo clova)

PERIODICAL: Nauchnyye doklady vysebey shkoly, Khimiya i khimicheskaya tekhnologiya 1958, Nr 3, pp. 530-532 (USSR)

ABSTRACT: The polymerization of 2-chloropentene-3 with chloroprene in the catalytic action of  $\text{Sn}^{II} \text{-Cl}_2$  was investigated. As a result a compound with the formula  $\text{C}_9\text{H}_{14}\text{Cl}_2$  was formed in good yield:

$\text{C}_9\text{H}_{14}\text{Cl}_2$  in % : C = 56,21, H = 7,31, Cl = 36,58 ~ 36,51  
 $t = 92^{\circ}$ ,  $d_4^{20} = 1,0382$ ,  $n_D^{20} = 1,4850$ ,  $MR_D = 53,31$ .

In reacting with ozone  $\text{C}_9\text{H}_{14}\text{Cl}_2$  decomposes into acetic acid, chloroacetic acid and methylsuccinic acid. The infrared absorption spectrum of this compound points to the absence of vinyl groups. In the unsaturated halogen derivatives chloro-

Card 1/2

SOV/156-58-3-32/52

The Reaction of Chloroprene With 2-Chloropentene-3 in the Presence of  
• Tin(II)Chloride

prene is deposited in positions 1 - 4. There are 1 figure  
and 8 references, which are Soviet.

ASSOCIATION: Sistem organicheskoy khimii Leningradskogo  
Tekhnologicheskogo instituta im. Lensoveta (Chair of Organic  
Chemistry at the Leningrad Technological Institute im.  
Lensoviet)

SUBMITTED: January 2, 1958

Card 2/2

AUTHORS:

Arbuzov, A. Ye., Razumova, N. A.

SOV/62-58-9 7/26

TITLE:

The Esters of Propyleneglycol Phosphorous Acid and Their Transformation Reactions (Ob efirakh propilenglikol'-fosforistoy kisloty i ikh prevrashcheniyakh)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1061 - 1069 (USSR)

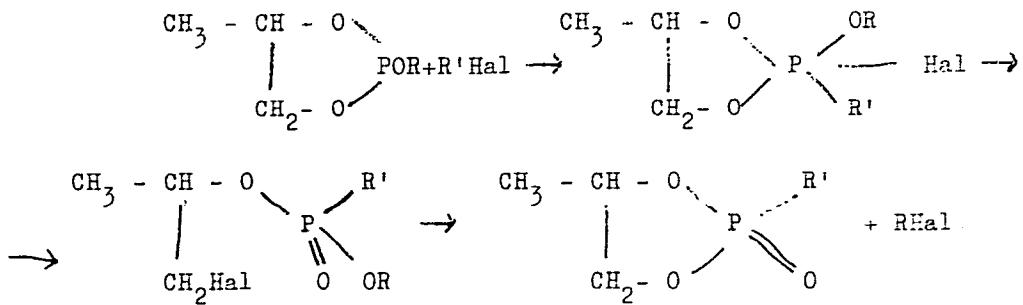
ABSTRACT:

The properties of the alkyl and aryl cyclic esters of phosphorous acid are different from those of the corresponding open-chain esters by their group rearrangements. The chemical behavior of the cyclic esters of phosphorous acid is described in detail in various papers by Arbuzov and others (Refs 2-5). As previous papers by the authors of this paper and by other authors have shown (Refs 2-5, 7-9), the cyclic esters can react in two different ways. To explain this reaction and the reaction of the open-chain esters with alkyl halides the authors carried out various experiments. They studied the reaction between the cyclic esters of propyleneglycol phosphorous acid and alkyl halides (group rearrangements according to Arbuzov).

Card 1/4

The Esters of Propyleneglycol Phosphorous Acid and Their Transformation Reactions SOV/62-58-9-7/26

Two kinds of compounds were found to be formed in this reaction: cyclic propyleneglycol esters of alkyl phosphinic acids and halogen esters of alkyl phosphinic acids (with open chain). As a result of the study on this rearrangement process the following mechanism was suggested:



It was further found that this process can be stopped with the step in which the halogen ester of the alkyl

Card 2/4

The Esters of Propyleneglycol Phosphorous Acid and Their SOV/62-55-9-7/26  
Transformation Reactions

phosphinic acid is formed. This depends, however, upon the temperature at which the experiment is carried out. It is not entirely out of the question that the group rearrangement of the alkyl cyclic esters may take place in some cases in two parallel ways: either according to the diagram given, which is accepted for the trialkyl ester of phosphorous acid, or through intermediate steps involving the opening of the ring. There are 4 tables and 10 references, 9 of which are Soviet.

ASSOCIATION: Kazanskiy khimiko-tehnologicheskiy institut im.S.M.Kirova  
(Kazan' Chemical Technological Institute imeni S.M.Kirov)

SUBMITTED: January 29, 1957

Card 3/4

79-28-5-2/69

AUTHORS: Petrov, A. A., Razumova, N. A., Genusov, M. L.

TITLE: Investigations in the Field of Conjugated Systems (Issledovaniya v oblasti sopryazhennykh sistem) LXXXVI. Addition of Piperylene Hydrochloride to Isoprene (LXXXVI. Prisoyedineniye gidrokhlorida piperilena k izoprenu)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol 28, Nr 5,  
pp. 1128 - 1132 (USSR)

ABSTRACT: In the present work the experimental results of the addition of piperylene hydrochloride (2-chloropentene-3) to isoprene is described. This hydrochloride differs favorably from the hydrochlorides of the most simple diene hydrocarbons by the fact that both allyl isomers are here of one and the same structure which reduces the number of possible isomers of the addition products by 50%. The selection of diene-hydrocarbon was not made arbitrarily as in consequence of its position 1,4-the geranylchloride isomer was to be expected, from which one could then pass over to the practically important isomers of citral, to the pseudo-ionone and the ionone. The addition ex-

Card 1/3

79-28-5-2/69

Investigations in the Field of Conjugated Systems. LXXXVI. Addition of Piperylene Hydrochloride to Isoprene

periments with 2-chloropentene-3 to isoprene showed that the reaction takes place according to a usual scheme under the formation of a mixture of telomers (products of telomerization). The yield of the initial addition products mainly depending on the duration of contact of the reagents and of the catalyst (=depth of the telomerization process). Only the addition product of piperylene hydrochloride to isoprene at a ratio of 1 : 1 was investigated; here 6 isomers with open chain and two cyclic compounds can occur. Thus the telomerization conversion of these two basic substances was carried out in the presence of tin chloride. It showed that this addition takes place mainly in the 1,4-position and that as initial substance preferably 1-chloro-3,5-dimethyloctadiene-2,6 forms, from which the isomer of citral, the 3,5-dimethyloctadiene-2,6 was obtained. Its crystalline derivatives were described - the semicarbazone and the 2,4-dinitrophenylhydrazone. A pseudo-ionone isomer was synthetized by condensation with acetone. The 3,5-dimethyloctane

Card 2/3

79-28-5-2/69

Investigations in the Field of Conjugated Systems. LXXXVI. Addition of Piperylene Hydrochloride to Isoprene

forms by hydration of chlordimethyloctadiene above palladium.  
There are 1 figure and 11 references, 8 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta  
(Leningrad Technological Institute imeni Lensoviet)

SUBMITTED: April 19, 1957

Card 3/3

SOV/70-28 8-30/64

AUTHORS: Petrov, A. A., Razumova, N. A., Genusov, N. I.

TITLE: Investigations in the Field of Conjugate Systems. (Issledovaniya v oblasti sопryazhennykh sistem) XC. Affiliation of the 2-Chloropentene-3 to Divinyl (XC. Tricoysedineniye 2-khloropenta-3 k divinilu)

JOURNAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr. 8, pp. 2152-2158  
(USSR)

ABSTRACT: The conversion of the 2-chloropentene-3 with divinyl is one of the most simple cases of a telomerization reaction under participation of a halogen derivative of the allyl type and one diene hydrocarbon. The affiliation of the two allyl-isomers to the carbon atom is impossible due to their identity. On the other hand, the number of the possible simple affiliation products of the composition  $C_9H_{15}Cl$  is very small thanks to the symmetrical character of divinyl and corresponds to the formulae (I), (II), and (III). This low number of the expected affiliation products rendered the investigation of the reaction of the 2-chloropentene-3 with divinyl especially

Card 1/3

Investigations in the Field of Conjugate Systems.  
Affiliation of the 2-Chloropentene-3 to Divinyl

SOV/7B-28-8-30/66

attractive, since their results promised to be simple and convincing. It was shown that the above reaction proceeds in two main directions under the formation of 3-chlorine-5-methyl octadiene-1,6 (1,2 affiliation), and 1-chlorine-5-methyl octadiene-2,6 (1,4 affiliation), in approximately equal quantities. A by-product (20 %) is formed as well, apparently a 1-methyl-2-chloro-ethyl cyclohexene-4. The hydration of the mentioned main products leads to methyl octane. The

5-methyl heptadiene-2,6-ai was obtained from 1-chlorine-5-methyl octadiene-2,6 according to Sommle (Sommle). On the strength of the comparison of the results obtained by the affiliation reaction to the analogous ones obtained in the case of isoprene considerable influence of the structure of the diene hydrocarbon on the affiliation process of the halogen derivatives could be found. There are 1 figure, 1 table, and 7 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta  
(Leningrad Institute of Technology imeni Lensoveta)

Serial 2/3

Investigations in the Field of Conjugate Systems.  
XG. Affiliation of the C-Chloropentene-3 to Divinyl

SOV/79-28-8-30/66

SUBMITTED: July 20, 1957

Card 3/3

SOV/70-00-1-41/66

Petrov, . . A., Razumova, N. A.

Investigations in the Field of Bon' Systems (Issledovaniya v oblasti sопryzhennykh sistem) KCl. Affiliation of chloroprenyl to Divinyl (KCl. Prisoyedineniye khloristogo prenyla k divinilu)

Zhurnal obshchey khimii, 1958, Vol. 28, Nr 3, pp. 2113-2145  
(USSR)

ABSTRACT:  
Compared with the reaction described in an earlier investigation of divinyl with 2-chloropentene-3 (ref 1), that of divinyl with chloroprenyl (1-chlorine-3-methyl-butene-3) is more complicated due to the tendency of this halogen derivative towards a rearrangement of allyl. The reaction of chloroprenyl with divinyl in the presence of stannous chloride was investigated. It was demonstrated that, compared with the earlier above mentioned reaction, the yield of  $C_4H_7Cl$  chlorides in considerably lower, depending mainly on the degree of reaction. Chloroprenyl affiliates itself to divinyl preferably in the 1,2-position, but to isoprene in the 1,4-position. According to Somme (Somme), the 1,4-compound furnishes  $\gamma$ -methylacet-

Card 1/2

Investigations in the field of Bond systems. ICI. Affiliation Sov/79-28-8-3/66  
of Chloroprenyl to Divinyl

diene-2,6- $\alpha$ 1, precipitated in the form of 2,4-dinitrophenylhydrazone. From the spectroscopic analyses of the hydration products of  $C_9H_{15}Cl$  chlorides it can be concluded that among

the reaction products there is only a small number of isomers which are not formed in accordance with Markovnikov's rule upon the affiliation of the halogen derivatives. In the partial hydration of the 1, $\beta$ -product a rearrangement of the double bond occurs. The expected cyclic chloride, chlorocis-propyl-cyclohexene-3, was obtained, though only in small quantities, from the corresponding alcohol by the action of phosphorus trichloride. There are 1 figure and 5 references, 3 of which are Soviet.

AFFILIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta  
(Leningrad Institute of Technology imeni Lensoviet)

SUBMITTED: August 16, 1957

Card 2/2

AUTHORS:

Petrov, A. A.: Razumova, N. L.  
Genusov, M. L.

SOV/79-28-12-12/41

TITLE:

Investigations in the Field of Conjugated Systems (Issledovaniya v oblasti sопryazhennykh sistem) XCV. Reactions of Piperylene With Its Hydrochloride, and the 1,4-Hydrochloride of Isoprene (XCV. Reaktsii piperilena s yego gidrokhloridom i s 1,4-gidrokhloridom izoprena)

PERIODICAL:

Zhurnal obshchey khimii, 1958, Vol 28, Nr 12, pp 3220-3224  
(USSR)

ABSTRACT:

Petrov showed earlier that various unsaturated chlorides of the allyl type react with diene hydrocarbons in the presence of  $\text{SnCl}_4$  or  $\text{ZnCl}_4$  under the formation of telomerization mixtures (Ref 1). The content of products of the simple affiliation of halogen derivatives to dienes (1:1) in such a mixture depends primarily on the nature of the halogen derivative. The direction of affiliation is determined by the structure of the diene hydrocarbon. This rule was proved by several other examples. The reaction of piperylene with its hydrochloride (2-chloro pentene-3) can easily be stopped at

Card 1/3